

# The Drift

**Edition 105**

**MAY 2017**

Quarterly newsletter of  
The Australian Blacksmiths  
Association (Victoria) Inc.  
Reg. # A0022819F

**ANNUAL GENERAL MEETING**  
**11:00am Sunday 23<sup>rd</sup> July, 2017.**

**02 FIRST PROJECT**

**06 EUROPEAN IRONWORK**

**12 NEARLY THIRTY**

**13 IVANHOE RSL**  
**COIL SPRING TOOLS**  
**BIGGER HAMMERS**

**14 HAMMER-IN**

**17 BEAT CANCER**

**18 BLACKSMITH HAMMER**

**19 MONDAY-ITIS**

**20 HAMMERS' TALK**

**24 FEATURE BLACKSMITH**

**26 ANNUAL GENERAL MEETING**  
**FOR SALES**

**27 SCORESBY STEAM**

**28 KYABRAM RALLY**



# My First Project

Loren Smith-Loncaric

My need for a new double gate in my driveway, as the old one was slowly breaking apart with every use, drove me to a journey of learning both in welding and blacksmithing.

Seeing as both were skills that I had no formal knowledge on and that was not even near to what knowledge or experience I did have, I believed I had much work to cover prior to me being able to put my car safely in our driveway. It started with learning in a short night welding course run by KANGAN Institute in the CBD.

mild steel into forms that I was trying to replicate from the self-paced learning sheet.

I decided that I would make a gate using a combination of blacksmithing, MIG welding, need, sander/cutter/angle grinder and to use the newest acquisition of an



*Loren's new gates.*

I was taught MIG, TIG and arc welding. Though I did not feel overly confident, I was able to succeed in holding a few bars of mild steel together in each method.

Then I looked in the mighty internet and found the Australian Blacksmiths Association at Bundoora.

I enjoyed the first visit and told my husband at home that night don't worry about us buying the outdoor furniture as I plan to make the outside furniture with my new found love of working with metal.

Needless to say I may have been overzealous, as a year passed and no furniture eventuated so we bought a lovely set of outside chairs and tables while I was still trying to light a fire well in the forge and hammering small pieces of

air compressor to coat the metal for the work of art in form of this strong but very useful gate.

Each piece to this gate project was a total learning experience for me.

Just understanding suppliers in the area and costs in choosing them.

I lived near metal suppliers but some were exorbitant and others were not appropriate.

I found metal junk yards to practice with and I was visiting hardware more times in this period than grocery shopping.

I found everyone willing to teach this girl how to put things together which I appreciated as I started with no knowledge

other than hammering a nail into wood.

I changed my double garage to have a workshop in the back half where I could emulate some of the workshop that my uncle in Switzerland had allowed me to learn with him for a month training both metal welding and forging at the end of 2015.

In the end, I could bring all the knowledge together to create this working double gate, behind which our two dogs stay safely and that we can access with our vehicles day and night.

I may have started with a project that was far beyond my reach at the time, but it has given my family and myself great pleasure every day when using or viewing my work of art and function.

# ABA (Vic.) Inc. Contact Details

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<b>ON-LINE</b> <a href="http://www.abavic.org.au">www.abavic.org.au</a>	<b>TREASURER and LIBRARIAN</b> Phil Pyros	<b>PATRON</b> Keith Towe	<b>The Drift EDITOR</b> Jim Deering
<b>PRESIDENT</b> Andrew Mobilia	<b>GENERAL COMMITTEE</b> Ben Sokol Gavin Brown Dan Brady Tony Srdoc Shane Kenny	<b>EVENT COORDINATOR</b> Dan Brady	<div><i>The Drift 106 out Aug 2017 Deadline 14 July 2017 The Drift 107 out Nov 2017 Deadline 14 Oct 2017 The Drift 108 out Feb 2018 Deadline 14 Jan 2018</i></div>
<b>VICE-PRESIDENT</b> Steve Nicoll		<b>DORIS COORDINATOR</b> Alice Garrett	

## Barn Roster

**REGULAR WORK DAYS - R** - are fortnightly Sundays 10:00am - 4.30pm. The Committee will open The Barn at other mutually convenient times; please contact the Secretary.

**DORIS DAYS - D** - are every second Saturday 10:00am - 4:30pm. The male membership is respectfully requested NOT to attend Doris days unless invited, as these days are for the female membership.

**COMMITTEE MEETINGS - C** - occur every six weeks at The Barn on regular work days at 11:00am.

**Members are welcome to attend and, if invited, may participate.**

DATE	SAT 13 MAY	SUN 14 MAY	SAT 27 MAY	SUN 28 MAY	SAT 10 JUN	SUN 11 JUN	SAT 24 JUN	SUN 25 JUN	SAT 08 JUL	SUN 09 JUL	SAT 22 JUL	SUN 23 JUL	SUN 23 JUL
EVENT	D	R	D	R	D	R C	D	R	D	R	D	R C	
Forge master AM	Alice or Rick	Dan	Alice or Rick	Doug	Alice or Rick	Tony	Alice or Rick	Shane	Alice or Rick	Andrew	Alice or Rick	Dan	AGM
Forge master PM		Gavin		Ben		Steve		Chris		Phil		Gavin	Note No forging

The Barn is open on **WEDNESDAYS** following normal Sunday work days for the use of ALL members as a trial.

**ALTERNATE SUNDAYS** The Barn is open on alternate Sundays for the use of experienced members.

**PLEASE NOTE** The Barn Roster is subject to changes, depending on the Forgemaster's availability.

## Purposes and Objectives of the ABA (Vic.) Inc.

To promote, preserve and develop the craftsmanship, design aspects and techniques of all the various disciplines of blacksmithing to the highest standard possible.

To provide a means of communication between mature people with an interest in the craft of blacksmithing, for the exchange of ideas, experience, techniques and information for their mutual benefit, by the publication of a regular newsletter.

To encourage a greater awareness of and interest in the application of the skills of blacksmithing among architects, interior designers, art/craft groups, and the general public and to provide links between blacksmiths and potential customers by means of exhibitions, demonstrations and publications.

To promote, and actively provide opportunities for training in all the various aspects of blacksmithing by means of demonstrations, displays, lectures, and special tuition sessions.

To act as the representative body of the interests of Australian blacksmiths, locally, nationally and internationally.

To undertake community service, providing always that these services are within the comfortable limits of the time, talents and costs that the Association and individual members can afford.

To encourage communication and goodwill among blacksmiths everywhere.

## Advertising

Commercial advertising, deemed by the Committee to be of interest to members, may be published in *The Drift*. Contact the Treasurer to book in and organise payment.

Advertising rates are  
\$60.00 Quarter page  
\$120.00 Half page  
\$240.00 Full page  
Colour Add \$75.00

Members are invited to place classified advertisements free of charge. Contact the Editor to book in and for details required to publish the advertisement.



02 FIRST PROJECT  
03 CONTACT DETAILS  
BARN ROSTER  
PURPOSES AND  
OBJECTIVES  
ADVERTISING  
04 BARN MAP  
POLICIES

DRIFT ARTICLES  
LEGALS  
05 PRESIDENT'S REPORT  
TREASURER'S REPORT  
LIBRARIAN'S REPORT  
BOOK REVIEW  
06 EUROPEAN IRONWORK  
08 SECRETARY'S REPORT  
UPCOMING EVENTS

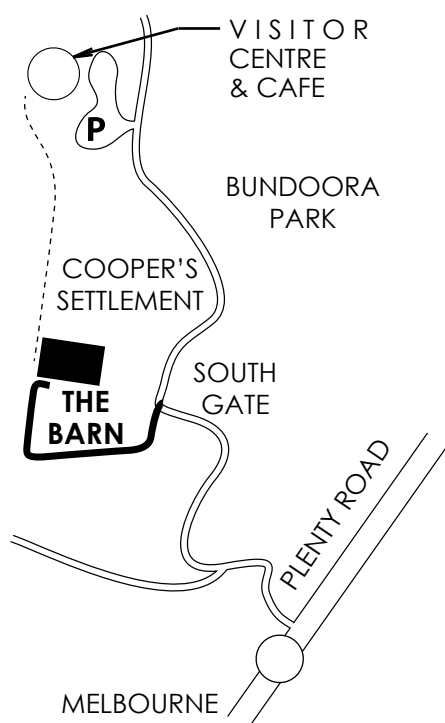
09 EVENT NOTICES PLUS v.11  
11 NEW MEMBERS  
12 NEARLY THIRTY  
13 IVANHOE RSL  
COIL SPRING TOOLS  
BIGGER HAMMERS  
14 HAMMER-IN  
16 TRAINING CALENDAR  
17 BEAT CANCER

18 BLACKSMITH HAMMER  
19 MONDAY-ITIS  
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24 FEATURE BLACKSMITH  
26 **AGM 23 July, 2017.**  
FOR SALES  
27 SCORESBY STEAM  
28 KYABRAM RALLY

## The Barn Location

The Barn is part of The Cooper's Settlement, Bundoora Park, Plenty Road, Bundoora.

Melways reference Map 19, F4



## The Barn Policy

Members can enjoy use of ABA (Vic.) Inc. equipment at The Barn.

- Forge fees are \$5.00 for a half day and \$10.00 for a full day.
- Forge availability is on a first-in first-served basis.
- You will need to clean out the hearth and start the fire.
- Due to coke supply issues keep your fire to a size which suits the stock you are working.
- **Ask the forgemaster if you are unsure or need advice.**
- If you plan to forge in the afternoon, arrive in time to pick a forge to use. Members who arrived early and started their fire are not always receptive to

- late arrivals asking to share.
- Members who wish to use the power hammers must either be trade-qualified and experienced in the operation of this sort of machinery or have successfully completed the ABA Vic. (Inc.) power hammer course.
- When you finish, let the fire go out, clean up your work area and replace tools in their storage locations.
- Always clean up spilt coke.
- Report damaged equipment.

## Library Policy

Members can enjoy access to the ABA (Vic.) Inc. library of books and magazines. The library is open from 12:00pm until 1:30pm on regular workdays.

- Borrowing members must have completed the self-paced learning exercises and attended the three regular workdays immediately prior to the borrowing date.
- Up to 4 books may be borrowed at any one time.
- Books must be signed for, including the borrower's name and contact details.
- Books are due for return by two calendar weeks of the borrowing date.
- If another member has reserved the titles, this member has priority for borrowing the books next.
- If unreserved, the loan may be extended for another two weeks, provided the books are returned to The Barn after the initial two weeks and the member signs for the extension period.
- Returning books late will result in the member being prohibited

- from further borrowing for a period of one calendar month.
- Magazines are not available for borrowing.

If you know of a title that may be of interest to the membership, please contact the librarian so a purchase can be considered.

## The Drift Articles

Articles for *The Drift* are always welcome and may be emailed, preferably in Word. In the text, place the words "Image of..." and the image file name. Do NOT place images in the text file.

Unaltered high-resolution digital images, preferably in colour straight from the camera or phone are preferred and of a maximum single file size of 5MB.

Hand-written articles and hardcopy photos may also be submitted via the ABA (Vic.) Inc. P.O. Box; so don't let a lack of computer skills get in the way. If you want your photos back though, please include a stamped, self-addressed envelope.

## Legals

This entire publication is copyright. No part may be reproduced without the written authority of ABA (Vic.) Inc. Contributors retain copyright of their work. Opinions expressed in *The Drift* are those of the authors, not necessarily those of ABA (Vic.) Inc. or the editor. All articles are presented for information only. Persons using this information must ensure their safety and that of on-lookers if acting on this information. No liability whatsoever for injury, financial loss or damage to persons or property will be accepted by ABA (Vic.) Inc., the editor or contributors caused by using information in *The Drift*.



## President's Report

The hot months are now behind us and working conditions at The Barn are far more pleasant.

This may be the reason for the continuing number of new members we are receiving. The increase in new members is great, but unfortunately we only have a limited number of forges available.

This problem has the committee investigating other ways of accommodating our members so that all can have a better than even chance of using a forge when they come to The Barn. It may mean members might have to pre-book their forge and only have use of it for a limited time, say 3 hours.

Alternatively, the more experienced members may be asked to come only on the "non" workday Sundays, subject to availability of weekends that don't clash with courses being held.

The nominated courses will always take precedence over work days.

Our trial of using The Barn on Wednesdays is continuing well with a solid group of attendees each fortnight. There has even been talk of weekly Wednesday workdays – who knows?

Over the last 3 months ABA (Vic) Inc. has attended several events and again the sight of our blacksmiths working with hot iron has attracted large numbers of admirers and even a few new members.

Speaking of events, in the last edition I mentioned that it might be an option for us to hold our own event on the Queen's Birthday weekend. Wiser heads have prevailed so this has been deferred (not forgotten). Perhaps we may combine with our host, Bundoora Park, for something later in the year.

It may be worth pointing out the

cover of *The Drift 104* showed two of our blacksmiths, Keith Towe and Steffano Gazzola, with a combined work experience of nearly 70 years, hard at it.

The future looks brighter when you have the knowledge of experience guiding you.

Until next time...  
Andrew Mobilia

## Treasurer's Report

The Cheque Account is \$4,419.90 and the Term Deposit Account is \$10,052.93 as of April 1<sup>st</sup> 2017.

Regards,  
Phil Pyros.

## Librarian's Report

The proposed new Library system has been narrowed down to three contenders, which are-

1. **biblio**
2. **biblioteq**
3. **filehippo**

*If any members have experience with these programs your input would be greatly appreciated.*

### BOOK DONATIONS

We continue our call to members to help to prevent valuable texts being dumped to landfill. Please keep an eye out for books, periodicals and manuals relating to blacksmithing for the Library. If you know of someone who is having a clean-out, please ask them if there are any documents that could be donated for use by our members.

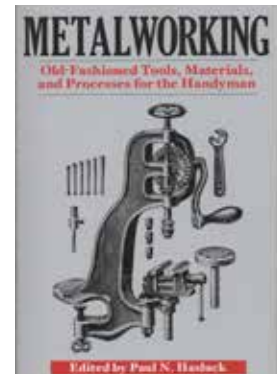
Regards,  
Phil Pyros.

## Book Review

*'Metalworking – Old-fashioned Tools, Materials, and Processes for the Handyman'* Edited by Paul N. Hasluck. Published by Skyhorse Publishing New York 2011. Originally published by D McKay Philadelphia 1907.

This book of 760 pages with over 2,200 diagrams was edited by an

Australian, Paul N. Hasluck (1854-1931). Hasluck, no relation we think to his more famous Australian namesake, was born in Western Australia before moving to England. His literary output was prodigious and he specialised in writing practical books covering, among other topics, woodcarving, wood working tools and techniques, rustic carpentry and traditional glassblowing techniques.



*'Metalworking'*, according to the publisher, "offers clear comprehensive instructions providing everything you need to know to turn a chunk of metal into a useful and well crafted product".

This is especially true with regard to this book. Subjects such as foundry work, smith's work, surfacing materials, drilling and boring, working sheet metal, repousse work and lathes and lathe work are covered in great detail. In fact it more than covers basic metalwork but also refers to the construction of such items as electric and petrol motors, a telescope, a microscope and a steam engine. The diagrams provided are clear and easy to follow and even though it was written over a 100 years ago everything is still relevant.

This book has something for everyone interested in these various aspects of metal work and I thoroughly recommend it to budding and experienced metalworkers. In fact I think it should form part of the ABA (Vic.) Inc. library.

Andrew Mobilia.





# European Ironwork Photo Study

Andrew Mobilia

The following photos are further examples of iron work I found in Europe.



Spain - Chain link (very heavy duty)



Versaille - Bannister rail



Versaille - window rail (note that it is on the inside of the window)



Versaille - Garden light  
adapted for electricity



Versaille - Gilded  
entrance door  
and fanlight



Spain - Fanlight grill

# Secretary's Report

Rick Stadler



The last quarter has seen a couple of away demonstrations which were advertised in *The Drift* 104. As always it tends to be only familiar faces that come and participate in these events. I understand that they can be difficult to get to but those that do, invariably have a great time.

So, if an event comes up that you can get to, don't let fear or reticence stop you.

Please give me a call and ask about them because they are a great way to meet other members, show off to the public and there is no pressure to do any particular thing.

We usually drag gear along if we know people are coming so there is no need to bring anything apart from your favourite tools.

You don't have to make anything, often the public are impressed if we just make a lot of noise and look like we are having fun. Parents

love showing their kids bits of red hot metal being whacked with hammers. It's an added bonus if you actually make a leaf or S-hook or mini horse shoe (who said that?) for them to take home.

Something for Show and Tell on Monday! Who can't love that?

It is a good thing to put on a show and entertain people. You have a great time in the knowledge that you have made their day worthwhile seeing something different. They get their money's worth and some even follow up and join.

There are still events coming up;

**National Heritage Rally**  
21 April, Hamilton.

**Waterside Blacksmithing and Metal Art Festival**  
13-14 May, Maribyrnong.

**Echuca Steam Rally**  
10-11 June, Echuca.

So, give me call and I'll see if I can talk you into coming along. I'm sure you will enjoy it.

Rick Stadler.

## Upcoming Events

Sorry I missed the last edition of *The Drift* but, even though I swore not to, I went on tour again right around deadline time and didn't get back until *The Drift* had come out. Thanks to Kieran for filling in the gaps with an impressive calendar.

These are the events that we have been invited to attend.

We will be making an appearance at the Waterside Blacksmithing and Metal Art Festival. I need to confirm numbers for this one so we can coordinate with Waterside as there will be a lot of other Blacksmiths from around the country and overseas demonstrating over the course of the weekend.

13 and 14 May

[www.watersidemetalart.org/festival/2017-festival/](http://www.watersidemetalart.org/festival/2017-festival/)

We've been invited back to

the Echuca Steam Rally, a long-standing ABA (Vic.) Inc tradition.

Queen's Birthday weekend  
10 and 11 June

I have four members attending so far. Still some time to add a few more although sadly this will be the first year in at least twenty that long-standing member Simon Baxter will not be attending as he has family commitments. Anyone who has attended in the past will have eaten Simon's Saturday night roast or been well looked after during the day by endless cups of tea and biscuits, not to mention yarnning with Simon for hours around the campfire. You will be missed this year mate.

[www.echucasteamrally.com.au/](http://www.echucasteamrally.com.au/)

There is this one as well coming in October:

Dan Brady

"Salesian College Sunbury will be running our annual Ruppo Harvest in late October on the grounds of the Rupertswood Mansion. This event seeks to promote to the local community the Agricultural studies undertaken by our students at the College, as well as local sustainability."

As always I'm looking for people that are happy to spread the word about our craft at demonstrations.

You don't have to forge necessarily as we could always use someone to answer questions from the public whilst others hammer away but it helps to keep the Association's public profile up and is a really good way to get to know your fellow members.

Dan





# Event Notices PLUS Version II

Kieran Gleeson

In this edition of *The Drift*, thanks to another stirring effort from Kieran Gleeson, we present an updated Event Calendar. The intention is to pique Members' interest ahead of an event. If you like what you see, get in contact with the nominated person and make your way to the next event. **Ed.**

## May

Melbourne Knife Show to be held in May 2017. Further details to come.

6 and 7 May

Quirindi Rural Heritage Village field day. 70km south of Tamworth, NSW.

Forge weekend at an excellent location and a swap meet to add to the enjoyment. Camping allowed on site and last year an excellent dinner was organised. Bring your own tools and materials. [www.artistblacksmithnsw.com](http://www.artistblacksmithnsw.com) Craig Drew

6 and 7 May. Site opens 10:00am. 109<sup>th</sup> Lake Goldsmith Steam Rally. Located 50km West of Ballarat Victoria.

A great family outing just kilometers from Ballarat, the Lake Goldsmith Steam Preservation Rally commenced in the 1930's and is the oldest vintage rally in the world and the largest permanent site in the Southern Hemisphere. Other than halting for the Second World War it has operated continuously since the 1930's. In 1960 they moved to the current site which they have occupied since. The Lake Goldsmith Rally site currently has fifty five privately-owned display sheds. Each one of these contains an amazing array of vintage equipment.

Lake Goldsmith Steam Rally is acclaimed as "Australia's premier steam rally" and has international recognition.

Hardy Wangemann and Peter Kandavenieks have attended Lake Goldsmith for over ten years, myself for the last three years.

Grand parade 2:15pm daily on an all-weather arena. Australia's

largest, (90 tons) fully operational steam shovel. Vintage cars and Motorcycles. Historic Machinery. Camping facilities. Large display of oil engines and tractors. Pioneer cottage and crafts. Blacksmithing [www.lakegoldsmithsteamrally.org.au](http://www.lakegoldsmithsteamrally.org.au) Kieran Gleeson

13 and 14 May

Waterside Blacksmithing and Metal Art Association Inc. 60 Maribyrnong St, Footscray. 7km from Melbourne CBD.

The Waterside Blacksmithing and Metal Art Festival is funding Shawn Lovell, a Californian blacksmith they met in July in Utah to come out and attend and also run some beginner / intermediate level workshops in the week prior. Refer to the article and advertising in this edition for further details. Facebook Blacksmiths Festival [www.watersidemetalart.org](http://www.watersidemetalart.org) Steve Phillips

14 May

Probable Forging at Singleton with Will Maguire 80km North West of Newcastle, NSW.

This is a special day with a forging of a bench for the local council. Details to follow as soon as they are confirmed.

May 20 and 21

Bellingen Show, Bellingen, 40km Southwest of Coffs Harbour NSW.

Forge day and demonstrating to the public at the showground. Bring your own hand tools and materials. [www.artistblacksmithnsw.com](http://www.artistblacksmithnsw.com) Craig Drew

May 20 and 21

Campbelltown Steam and Machinery Museum, 65km from

Sydney CBD.

Forge weekend and demonstrating to the public during the museum field day at Menangle, NSW. Bring your own equipment and there are camping facilities on site. Great if you love all things steam, diesel and old.

[www.artistblacksmithnsw.com](http://www.artistblacksmithnsw.com) Craig Drew

Despite the number of activities noted it is by no means a complete listing. If there is an event you'd like to see added to this list, please let the editor know - the contact details are on page 03. Given most events can be subject to change, sometimes short notice, it is advisable to check with the contact person for any event you are planning to attend to make sure everything is going as planned **before** you head off.

## June

10 and 11 June.

The Wimmera - Mallee Pioneer Museum Jeparit, Vintage Rally Saturday and Sunday of the Queen's Birthday weekend.



Clydesdale team at Wimmera - Mallee Pioneer Museum, Jeparit.

The Blacksmiths shop we operate out of was previously located at Antwerp, and was originally owned by Bill Eldridge who



operated at Antwerp in from 1903 to 1948, his son Don continued on until 1968. Bill and Don carried on for 65 years and saw the change from intensive work with strikers to foot operated power hammers, from horse to tractor and wagon to truck. Antwerp is 26km south of Jeparit.

The Wimmera - Mallee Pioneer Museum is in a beautiful setting on the banks of picturesque Wimmera River in the town of Jeparit. The museum covers 3.4 hectares and showcases life in the Wimmera - Mallee as it was in the early 1900's. It features a working blacksmith's shop with a working vintage spring hammer, horse and coach rides, blade shearing, Clydesdale horses, craft, a large collection of engines and machinery. Over 90% of the tractors on site are in working condition with many started up and driven over the rally weekend.  
[www.facebook.com/WMPMJeparit](http://www.facebook.com/WMPMJeparit)

10 to 13 June. *This is **not** a long weekend in QLD.*  
Blacksmithing weekend at Whipbird Hill near Boonah QLD. Approximately one hour south west of Brisbane.

Camp sites available. Bring your own tools, steel and metals, forge and anvils if possible. There will be some to share. Charcoal provided. Bring your musical instruments. Food provided from Friday dinner to Monday lunch. Meals for spectators depending on supply \$25.00. Cost \$180.00, negotiable for shorter times.  
Martin and Patena

10 and 11 June  
54<sup>th</sup> Echuca-Moama Steam Rally. Long weekend in Victoria.  
Rotary Park, Echuca, Vic.

The Australian Blacksmiths Association (Victoria) Inc. attend this annual event. Up to fifteen blacksmiths on site. Camping available on site.  
[www.abavic.org.au](http://www.abavic.org.au)

17 June  
Forging in Tamworth.  
Regional Craft Centre, 109 Peel Street, Tamworth. NSW.

Plenty of room and equipment but please check with Craig as bringing your own portable gear will assist. Local accommodation is available for those staying overnight.  
Craig Drew

## July

8 and 9 July  
Forging in July PLUS 5-day master class.

Probably to be held in the Eveleigh Railway Workshops in Sydney with our guest master blacksmiths Monica and Benjamin Kjellman-Chapin from Norway. Details to follow as they become known.  
[www.artistblacksmithnsw.com](http://www.artistblacksmithnsw.com)

**23 July at 11:00am**  
**ABA (Vic.) Inc. Annual General Meeting. At The Barn.**

## August

5 and 6 August  
Rose Hill Gardens  
[www.sydneynifeshow.com.au](http://www.sydneynifeshow.com.au)

12 August, 2017  
Artist Blacksmith's Association NSW Inc, AGM and forging day at Forgemasters, Richmond Main Colliery, Leggetts Drive, Richmond Vale, NSW, 2323. 40km west of Newcastle, NSW.

As usual Phil Johnson gives us access to an industrial workshop allowing us to complete large forgings and tools. AGM will be at 9am for approximately 1 hour.  
[www.artistblacksmithnsw.com](http://www.artistblacksmithnsw.com)  
Craig Drew

## September

9 September  
Forging on the Central Coast at Jess Bray's, Fountaindale, NSW.

Our first visit to the forge of Jessica

Bray on the Central Coast. Always good to forge at a new place but please bring your portable gear as Jess is still setting things up. More details to come as we get closer.  
[www.artistblacksmithnsw.com](http://www.artistblacksmithnsw.com)  
Craig Drew

## October

1 October. 10:00am to 3:00pm. (Note - long weekend)  
South Coast Knife Show. Main Hall, Bate St, Central Tilba, NSW.

Contact Iain and Sarah Hamilton.

[www.facebook.com/southcoastknifeshow](http://www.facebook.com/southcoastknifeshow)

First Sunday in October  
Streatham and District Vintage Rally. Streatham Fire World Complex, Glenelg Highway Streatham 75km south west of Ballarat.

Working blacksmiths - John Madigan regularly attends. John is an industrial-trained blacksmith and he often does an interesting display.

Displays of vintage trucks, cars, Machinery and Cycles. Blade & Mechanical Shearing. Old-style children's games and activities.

8 October  
Mont De Lancey Homestead, 71 Wellington Rd, Wandin, Vic. Approximately one hour from Melbourne CBD.

Capacity is 10 working visiting blacksmiths at no cost, but bring hand tools. Coke supplied. Local or international visiting blacksmiths are welcome at any Sunday throughout the year.  
Oskar Huecherig

14 October  
Forging at Steve Gale's Roscommon Forge, Pembroke, NSW.

Another great forging day at a great location. Please bring along





your portable gear as it will assist depending on numbers  
[www.artistblacksmithnsw.com](http://www.artistblacksmithnsw.com) Craig Drew

TBA

Campbelltown Steam and Machinery Museum.

Forge weekend and demonstrating to the public during the museum field day. Bring your own equipment and there are camping facilities on site. Great if you love all things steam, diesel and old.  
[www.artistblacksmithnsw.com](http://www.artistblacksmithnsw.com) Craig Drew



*Don Gabriel on Jim Docherty's hammer at a past Ironfest.*

## November

Adelaide Knife show

Details to be advised.

3, 4 and 5 November  
Colac Show.

4 and 5 November, site opens 10:00 am.  
110<sup>th</sup> Lake Goldsmith Steam Rally. Located 50km West of Ballarat, Victoria.

Grand parade 2:15pm daily on our all-weather arena. Australia's largest, (90 tons) fully operational steam shovel. Vintage cars and Motorcycles. Historic Machinery. Camping facilities. Large display of oil engines and tractors. Pioneer cottage

and crafts. Blacksmithing.  
[www.lakegoldsmithsteamrally.org.au](http://www.lakegoldsmithsteamrally.org.au) Kieran Gleeson

11 November  
Christmas forging at Don Gabriel's, Nabitac, NSW.

The last NSW Blacksmiths Association forging session of the year and their Christmas get together. Bring along your tools and materials, meat and alcohol and the Association will provide the rest.  
[www.artistblacksmithnsw.com](http://www.artistblacksmithnsw.com) Craig Drew

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If there is an event you'd like to see added to this list, please let the Editor know - contact details are on page 03.

Given most events can be subject to change at sometimes short notice, it is advisable to check with the contact person for any event you are planning to attend to make sure everything is going as planned before you head off.

**In following editions of *The Drift* we hope to continue publishing Kieran's Events Calendar, thus providing on-going notice of activities which may be of interest to members.** Thanks Kieran! Ed.

## Welcome to New Members

ABA (Vic.) Inc. would like to welcome the following new members.

Natasha Bateman of Brunswick  
Vanessa Borg of Mernda  
Deborah Bowen of Rosanna  
Jonathan Brett of Werribee  
Joshua Evely of Brighton East  
Roy Fatim of Keilor East  
Andrew Fraser of Brunswick West  
Ken Kavanagh of Sunbury

John Markham of North Melbourne  
Tom Markham of North Melbourne  
Duncan Carter of Yuroke  
Phil Robinson of Brookefield  
Kylie Robinson of Reservoir  
Liam Jeffrey of Hamilton  
Sasha Hayes of Thomastown  
Steven Waszkinel of Whittlesea

Please make yourselves known when visiting The Barn.



Thirty Years Young

Jim Deering and Keith Towe

ABAVic (Inc.) is heading towards its thirtieth year of existence. We will start to look back in the next few editions, as we also look forward to that milestone and plan for what comes beyond it.

In this edition - thanks to Keith Towe - we have a dusty list from the early days, when ABA Vic. (Inc.) was known as the **Victorian Blacksmiths Association**. Page one - below - shows the then-office bearers.

The **Annual General Meeting** is

coming over the horizon now; **July 23<sup>rd</sup>** is not that far away after all...

Perhaps you could start thinking about nominating for the Committee? Or about supporting the away events the Association regularly attends? Or about

lending a hand - or better still two - at The Barn?

There is plenty to do and all help will be gratefully accepted. No matter what your experience; offer to help and we will see that you have something to help with.

Year	President	VP	Secretary	Treasurer	Editor	Committee
1989	Glen Mitchell	N/A	Keith Towe	Keith Towe	Keith Towe	Jack Gilbert John Ritchie Bill Forrest Frank Willcock Mike O'Grady Richard Caldararo Daniel Jenkins
1990	Glen Mitchell	N/A	Keith Towe	Keith Towe	Keith Towe	Jack Gilbert John Ritchie Bill Forrest Frank Willcock Mike O'Grady Richard Caldararo Daniel Jenkins
1991	Norm Foun	N/A	Keith Towe	Keith Towe & Doug Tarrant	Keith Towe	Harry Park Don Marshall Les Kinder Bill Bunting Kevin Rapley
1992	Norm Foun	N/A	Keith Towe	Keith Towe & Doug Tarrant	Keith Towe	Harry Park Don Marshall Oskar Huecherig Bill Bunting Kevin Rapley
1993-94	Norm Foun	N/A	Ray Reid	Doug Tarrant	Keith Towe	Des McCarthy Don Marshall Oskar Huecherig Bill Bunting Kevin Rapley



The AUSTRALIAN BLACKSMITHS ASSOCIATION (Victoria) Incorporated would like to acknowledge the continued support of BOC GASES in supplying our workshop oxygen and acetylene gases.  
Visit BOC GASES at [www.boc.com.au](http://www.boc.com.au)





# Fire at the Ivanhoe RSL

It was very sad to see the wonderful RSL Building at Ivanhoe destroyed by fire on Friday 21<sup>st</sup> April. Living in the area at one time, we attended many functions at the venue and I always admired the beautiful statue of the blacksmith set on the bottom pillar of the staircase, and I do hope that it has been saved. KT.

## Coil Spring Material as Tools

We often see newcomers to blacksmithing trying to acquire coil spring material to make anvil tools; punches, drifts and knives, etc.

Their actions in straightening the material sometimes makes me shake my head, as so often we see a coil thrust into a fire, heated to a very dull red and then pounded with a hammer in an awkward method in an effort to straighten some portion of the circular shape.

It would be very much easier to abandon the hammer in favour of a suitable fork, set in the anvil or the leg vye.

Heat the first 100-150mm of the material and straighten this section in the fork, then refine the straightness with a few hammer blows.

The spring can then be held in suitable tongs, and the straightening action repeated.

If just short sections are required for punches, drifts etc., cut them from the coil spring with a fine disk in an angle grinder prior to straightening; this is so much easier. KT.

*In the images below one end of the spring has been heated, straightened in the odd-legged fork, flattened, and punched to accept a hook attached to a rope.*

*The coil was then re-heated in its entirety in a suitable furnace, placed over a mandrel and uncoiled in one move, with the rope pulled by a number of helpers. Perhaps not for everyone, but it is fast and entertaining to do! Ed.*



## Get a Bigger Hammer

In the life of the average blacksmith - if there is such a creature - there is a tendency to evolve to progressively bigger hammers.

American Bladesmith Society Master Bladesmith, Shawn McIntyre, showed this evolution in clear steps recently and the entire process was recorded for posterity.

## The Wandering Forger

[www.silvergrains.com.au](http://www.silvergrains.com.au)





# Hammer-in

Agent for Anyang Hammers in Australia, Bruce Beamish, hosted a Hammer-in at his facility in Moe recently.

A dozen or so hot metal and knife enthusiasts gathered to make tools and fire weld Damascus billets under a range of pneumatic hammers.

Lunch was catered and prepared by Eugene Davorin-Britton, a feast indeed.

Advice on knife-making was offered by American Bladesmith Society Master Smith Shawn McIntyre of McIntyre Knives. Many were very interested in Shawn's flux-less welding technique performed using a gas forge...

A Hugh McDonald-designed rolling mill was put through its paces by knife-maker Tobi Bockholt by drawing out a billet of sanmai leaving an impressively free of marks surface on each pass through the rolls.

Images for this article and the **COVER IMAGES** were kindly provided by talented free-lance photographer, Marisa Schlichthorst, of *Silver Grains Photography*, using a Canon 5d MarkIII with Canon EF 24-70mm F2.8L. See more of Marisa's work at [www.silvergrains.com.au](http://www.silvergrains.com.au) or [www.facebook.com/silvergrainsphotography/](https://www.facebook.com/silvergrainsphotography/)







# Australian Blacksmiths Association (Vic.) Inc. 2017 Training Calendar

## MAY

M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## JUNE

M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

REGULAR WORK DAYS

REGULAR DORIS DAYS

HAND FORGING COURSE

## JULY

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## AUGUST

M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

INTRO TO BLACKSMITHING

CHRISTMAS PARTY/ EGM

POWER HAMMER

WROUGHT IRON

## SEPTEMBER

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

## OCTOBER

M	T	W	T	F	S	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## NOVEMBER

M	T	W	T	F	S	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

## DECEMBER

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31





Proudly Supporting



**Prostate Cancer  
Foundation of Australia**

To who it may concern,

I'm helping a mate to organise a charity event to raise awareness and funds for the **Prostate Cancer Foundation of Australia**.

Jay Jones (Blacksmith/Owner of Odin's Arms Forge) and myself (Heath Roper) are asking if anyone can donate in any way, shape or form.

We will be forging a beautiful metal tree that will hold lanterns, made by a group of talented men to shine light on this cause. Jay is a Blacksmith and will be instructing a group on the said weekend, teaching basic blacksmithing techniques to make the lanterns that will hang on the Lantern Tree. The lantern tree will then be donated and raffled off with the proceeds going to the **Prostate Cancer Foundation of Australia**.

Anything, from donated materials, electrical supplies and services, publicity before and after the event, food and drinks would be greatly appreciated.

We are registered for this fund-raising under approval number **144860** from **Prostate Cancer Foundation of Australia**.

Below is a Garden Gate that Jay (pictured with the gate) and the group made and donated to the ABF Foundation and Charity "End All Domestic Violence".

Contact either of us if you wish to discuss anything.

Thanks and we hope to hear from you.

Heath and Jay.



*Odin's Arms Forge*

*"Charity Hammer"*

*Saturday 10<sup>th</sup> to  
Monday 12<sup>th</sup> June  
2017.*

*Carapooee, Victoria.*





# Traditions: The Blacksmith Hammer

Robert Fox

The hammer is one of the oldest tools found in the archaeological record, some examples claimed to be over 300,000 years old. Some animal species regularly use hammers to break open nuts and shells.



*A Bearded Capuchin monkey uses a rock to crack open nuts.*

Hammers have been used in flags and heraldry as symbols of justice (a gavel), industry (mining or smithing) and strength (war hammers). The hammer and sickle on the flag of the Soviet Union represents the industrial and agricultural working classes.

In Norse mythology, Thor, the god of thunder and lightning, wields a hammer named Mjölir. Many artifacts of decorative hammers have been found, leading modern practitioners of this religion to wear reproductions as a sign of their faith.

Judah Maccabee, the Jewish war hero who fought a running guerilla warfare against the Romans was nicknamed "The Hammer," possibly in recognition of his ferocity in battle, as was Charles Martel, grandfather of Charlemagne, and the ruler of France who turned back the Moorish invasions. In the late medieval period when steel armor was prevalent, war hammers were used in close combat to direct a lot of force to a small area, denting or piercing the armor, or transferring enough force to break bones underneath.

## HAMMER PHYSICS

A hammer is basically a force

amplifier that works by converting mechanical work to kinetic energy and back. Each hammer blow is stopped by an equal and opposite opposing force. Since the distance over which the hammer decelerates (the depth of the hammer's dent in your metal) is much smaller than the distance over which the hammer was swung, the decelerating force must be much stronger than the force which accelerated the hammer. If you swung the hammer 1,200mm and made a dent 3mm deep, then the force required to stop the hammer must have been 400 times the force which accelerated it – which is why the hammer is a "force multiplier".

$$E = \frac{mv^2}{2}$$

The amount of energy delivered to the target by the hammer is equal to one half the mass of the head times the square of the head's speed at the time of impact. While the energy delivered to the target increases linearly with mass (a four pound hammer delivers twice as much energy as a two pound hammer), the energy increases quadratically with the speed (a hammer swung at 40km/h will deliver four times the energy of the

same hammer swung at 20km/h).

## HAMMERING TECHNIQUE AND ERGONOMICS

When swinging a hammer, you employ the shoulder, elbow, wrist, and fingers. Without training, most people will use only their wrists for light blows, add the elbow for medium blows, and employ the shoulder only for really heavy hammering. That's fine, so far as it goes, but the point at which most smiths bring in the heavier joints is arguably much later than it should be. The shoulder is the strongest of these joints, and the one which, when employed, will add the most distance to the swing, resulting in the highest velocity on impact.

True, the larger joints and longer, faster swings result in less control over the placement of the hammer blow, but training and practice will improve accuracy dramatically, and precision accuracy is less critical during heavy forging. Most smiths would be better served to use their shoulders much more than they currently do for medium forging. Watch an old-timer, professional smith some time and you will be surprised at how high they actually lift the hammer over their heads.

Rather than use the shoulder to lift the hammer higher, many smiths today simply swing harder and faster at the elbow, "pushing" the hammer into the stock rather than letting gravity do the work. This is actually much more strenuous than using the shoulder, and, because it requires the hammer to be gripped tighter, results in a great deal of shock being transmitted into the arm. This can lead to tendonitis and tennis-elbow, in some cases causing permanent, irreparable damage. Also, the effort of swinging only from the elbow often leads to smiths leaning forward

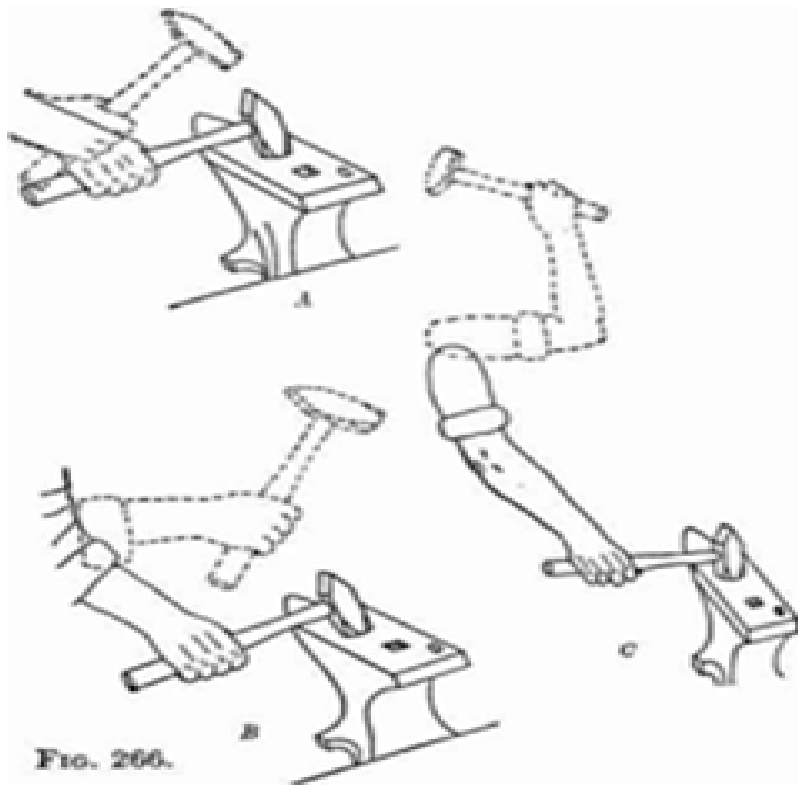


FIG. 260.

over their work, adding strain to the back and legs as well.

One aspect of hammer technique that is often overlooked entirely is the use of the fingers. Mark Aspery is a smith who was classically trained in England. In his excellent book *"The Skills of a Blacksmith Volume 1: Master the Fundamentals of Blacksmithing,"* he goes into great detail about hammering technique. In the photos, you can see that when his swing reaches the point where the forearm is parallel to the ground, the hammer handle is still vertical. In the final moments of the swing, the fingers are used to whip the hammer around to horizontal. This is done by holding the hammer loosely between the thumb and index finger, and using the remaining fingers to "throw" the hammer into the metal. Some other authorities use the middle finger, in order to use the index finger to apply return leverage. In either case, this results in a much higher velocity, greatly increasing the energy transferred.

This technique also results in a looser grip, which transmits much less shock, dramatically reducing fatigue and increasing the length

of time the smith can forge without tiring.

#### HAMMER HANDLES

The hammer handle (or helve, haft) seems a rather simple subject, but it is in fact quite complex and fraught with controversy.

It is easier to work with a long handle on a light hammer than a long handle on a heavy hammer, and the longer handles allow a longer effective swing, resulting in a higher velocity at point of impact. And as we discussed in the physics section earlier, velocity is more important to the energy of the blow than mass.

Heavy-hammer supporters counter this argument by claiming that you rarely actually take advantage of the full length of a long handle, and the actual travel distance of the hammer in flight is not significantly longer than that of a heavier hammer on a shorter handle.

Handle length is, in the end, a compromise between the lack of precise control of a long handle, and the decreased force delivered with a short handle.

All in all, the lowly hammer is actually quite a complicated little tool, and a critical part of your ability to forge safely and forge well. Take some time to understand and appreciate your hammer today!

Reprinted with permission from a longer article by Robert Fox, editor of VOICE, the newsletter of BOA – Blacksmiths Organization of Arkansas – February 2017 edition. Thanks Robert, **Ed**.

## Strikers get Monday-itis too!

Time spent idly browsing the web may have seen you happen upon this image. But did you delve further?

The image is from *'Selections From the Chronicle – The Fascinating World of Early Tools and Trades'*, The Astragal Press, Mendham, New Jersey.



The image caption reads, 'A rare photo of a three-handled hammer given the nickname a 'Monday hammer' by forge-men because, as they told me, "No one likes Mondays either". The heads of these hammers weighed anything up to 140lb and five men were required to use them successfully. To the right of the photograph can also be seen a two-handled hammer which had the nickname of a 'johnny hammer'. The heads of these could weigh 60-80lb. In the bottom right-hand corner can just be glimpsed a link of square mooring chain; perhaps this team was working on this.'



# Hammers' Talk, a Lost Language

## Non-verbal Communication Between Blacksmiths and Strikers

Martin Geddes



### THE NUMBER ONE RULE

**"The Blacksmith does the blacksmithing, the Striker does the striking and never should the two roles be confused".**

### CALLING IN YOUR STRIKER AND HAMMER WEIGHT

When the Blacksmith requires the assistance of a Striker, the Blacksmith has already ascertained what size hammers the Striker will need and what tooling is required to complete the forging.

Firstly, the Blacksmith would get the attention of the Striker by tapping the horn of the anvil an appropriate number of times with his hammer. The horn of the anvil is used because it has its own distinctive sound when hit, a very different tone to the table of the anvil.

Two taps on the horn of the anvil by the Blacksmith would indicate to the Striker a 4lb double-face hammer is required, three taps on the horn would indicate a 7lb double-face hammer and one tap on the horn would indicate to the Striker that a 10lb double-face hammer is required. Now common sense must prevail here; if the Blacksmith calls for a 4lb and there is a 5lb in the shop, then pick it up and the Blacksmith will adjust the weight of the hammer blows by the Striker. Accordingly, the same applies if there is a 6lb hammer in the shop and a 7lb is called for; pick it up and if the Blacksmith needs more force out of it then he will let the Striker know by his body language during the forging.

So that the Blacksmith is aware the Striker has heard the call and is at the anvil (the Blacksmith may be tending the fire and the forging) the Striker should respond with the same number of hammer taps on the horn. This is to let the Blacksmith know the Striker is there and importantly relay to the Blacksmith

The Blacksmith, holding the hand hammer above his head, is signifying a heavy blow is required from the Striker. The Striker has noticed the Blacksmith's body language and is in the process of delivering a heavy blow, his body fully engaged and pulling the sledge hammer downwards with his full effort. Image Pinterest.

***This workshop will take you back generations in that one family to the past, a forgotten past, when communication in the Blacksmith shop was solely done by the ring of the hammer on the anvil and subtle gestures by the Blacksmith, often missed by an untrained eye, to indicate what the Blacksmith needed from his Striker so he could forge quickly while the iron was still hot and malleable.***

***We will, together, work as the Blacksmith and the Striker did centuries ago and revisit a part of man's evolutionary apprenticeship with metal and forge using this non-verbal form of communication.***

***I trust you will then keep it alive by using it the next time you call in your Striker.***

This information is sent to people enquiring about "The Lost Language Classes" blacksmith and educator Martin Geddes runs in Queensland.

Over the next few editions of *The Drift* Martin will take us into the realm of the "Lost Language of Striking" with tips and advice, historical information and will provide an insight into one blacksmith's dedicated effort to ensure the future of a facet of forging overlooked, and even unknown by many, but which is enjoying a long-overdue resurgence. **Ed.**

So that the Blacksmith is aware the Striker has heard the call and is at the anvil (the Blacksmith may be tending the fire and the forging) the Striker should respond with the same number of hammer taps on the horn. This is to let the Blacksmith know the Striker is there and importantly relay to the Blacksmith







*The more things change, the more they stay the same. The Blacksmith, Ingvar Masson, with hammer held high, and the Striker, Martin Geddes, with a sledge hammer and at full stretch about to deliver another heavy blow, centuries later on the other side of the world, but connected by and still speaking 'The Lost Language'. Image courtesy Wayne Schmidt of Cracked Anvil Forge.*

the correct hammer weight is at the ready.

### **BLACKSMITH ONE, STRIKER ONE THE ONE-TO-ONE (1:1) RATIO**

In this example a 7lb double-face hammer has been called and, anticipating the Blacksmith's instructions on the mode (a mode is an instruction or action requested by the Blacksmith) of delivery, the Striker's job is to land his sledge hammer blows exactly where the Blacksmith's hammer makes an impression in the hot steel.

The Blacksmith has brought the hot steel out of the forge and with two taps on the table of the anvil (two taps on the anvil table meaning a one-to-one ratio is

required) the Blacksmith starts to raise the hammer hand with hammer clutched, assisted by a tall ascend of the hammer to above head height. This tall, ascending action by the Blacksmith can allow just a few extra seconds for the Blacksmith and Striker to co-ordinate the mode desired by the Blacksmith. Then the Blacksmith's hammer falls much faster than it ascended and contacts the hot steel.

In the meantime, the Striker has had a clear indication of the mode of delivery the Blacksmith has called for and has raised his 7lb hammer above head height. After the Blacksmith has contacted the hot steel and the Blacksmith's hammer is well out of the way, the

Striker delivers a blow. This is the one-to-one, or 1:1, ratio between the Blacksmith's hammer hits and the Striker's sledge hammer hits. The intensity of the blows is varied as necessary across four stages only when using a 7lb hammer.

### **HANDLING THE SLEDGE**

Before we get into the details, let's look at the primary tool of the Striker, the sledge hammer and how to use it as a Striker.

**Rhythm is Important - Timing is Crucial.**

### **SLEDGE HAMMER TECHNIQUE**

When you are Striking with either a 7lb, 10lb or 14lb hammer, I believe you must adopt a method/technique that will allow sustainability and accuracy throughout the forging process.

Please study the following images.



Observe the Striker's grip on the handle of the 10lb (4.5kg) sledge hammer. The hands are close together and are gripping the handle securely, dominant hand closest to the hammer's head. During the entire cycle of the motion the hands do not slide along the hammer handle as they might if using an axe to cut wood, or a long-handled sledge to break concrete.

The Striker has also "dialled in", meaning he has positioned himself within easy reach of the forging by placing the hammer on the anvil



near his target (or the swage block, as shown in the images), which the Blacksmith will notice and be reassured that the Striker is at the correct distance from the forging and to enable free movement whilst striking, but not so far away that he must reach forward to place the hammer blows, as this would lead to the Striker being off-balance and hence delivery of inaccurate blows or missing the target completely.

The distance is dependent upon the dimensions of your body measurements and hence is different for everyone. The sledge hammers used by the Striker are all 600mm long overall, measured from the tip of the handle to the head.

When using tooling (flatters, fullers etc.) there is a specific orientation the Striker is to be positioned in relative to the Blacksmith. This will be addressed in future editions.



From the beginning, lift the sledge hammer and draw it towards your body at the lowest level possible.



In one, fluid motion, use your back, chest and shoulder muscles to lift the hammer, keeping it close to your body and raise it above your head as high as possible.



As you raise the hammer, breathe in as much as possible and then exhale on the downstroke, leading to the hammer's impact on the hot forging.

This breathing technique is so often over-looked by many and reminded to them often.

I encourage you to exaggerate this each time when you are striking to get a good build-up of oxygen into your blood stream if you don't you will run out of steam very quickly and it is impossible to catch it up.

You are better to come in with excessive oxygen in the beginning of the striking and then back it off as needed.

Remember, **inhale as you raise the hammer** and **exhale as you are pulling it down**, as your arms are pressing past your chest.

You will know if you get it correct by the end of each striking run as you will be able to have a conversation without panting or having trouble stringing words together without stopping and taking heavy breaths.

Martin is assisted in this series of images by Paul Bishop.



Raise your entire body weight onto your toes to achieve maximum height for the hammer before beginning to pull the hammer downwards.

The hammer head ought to travel in a path as close to vertical as possible from the top of its motion.



When you have delivered the hammer blow – exhaling on the downstroke - draw the hammer to your body at the lowest level possible and then use your back, chest and shoulder muscles to lift the hammer, thus beginning the cycle again.



If you keep your arms straight when lifting the hammer, fatigue will set in very quickly and damage to the smaller muscles and tendons in your arms will be inevitable.

You will be far more accurate raising the hammer above your head, as opposed to using a large arc swinging from behind your back; you will briefly lose visual contact with your target and have more calculation to make within the swinging arc of the hammer coming from behind you.

I was asked during a recent demonstration, "How long can you keep that up for?"

My reply was, "All day, as long as the steel is hot".

What the Striker must be aware of is not just the *location* where the Blacksmith's hammer contacts the steel, *but to mimic the Blacksmith's hammer height and force*. Predominately, it is the *height of the Blacksmith's hammer that indicates the aggressiveness of the blows* and in turn how deep it is penetrating the hot steel.

#### FOUR STAGES OF HAMMER PRESSURE

There are four stages of hammer pressure that can be applied using a 7lb sledge hammer with the one-to-one ratio.

Once these blows by the Blacksmith and Striker are under way with a 1:1 ratio the Blacksmith will decide at some point to lighten the hammer blows delivered by the Striker due to the mass of steel that is being displaced. This can be communicated to the Striker very effectively and occurs in four stages, meaning from heavy to light blows and, where necessary, from light to heavy blows.

Now, at this point we talk about the Blacksmith raising the hand hammer above head height (this height is **Stage One**). When the Blacksmith indicates these heavier blows it is the Striker who sets the speed, rhythm and timing of the hammer blows based on their

strength and stamina, especially when the Blacksmith is forging in this Stage One mode, as this is very demanding on the Striker.

In this stage the Striker is expected to apply force as opposed to speed. It is the Blacksmith's job to control the location and how heavy the Striker's blows are, but it is the well-oiled combination of the Blacksmith and Striker that makes a good team and for a large amount of hot steel to be worked safely.

During the forging with a Striker, and as the forging progresses the Blacksmith can change the force of the Striker's hammer blows by not raising the hand hammer as high. If the Blacksmith only raises the hammer to shoulder height, (**Stage Two**) the Striker will see this change in the height of the hammer and body language and adjust the pressure and speed of the sledge hammer blows accordingly. At this point the pace can fasten because the Striker doesn't need to lift the hammer as high and has less distance to travel back to the hot steel.

**Be warned;** *if the correct modification to the approach to the hot steel by the Blacksmith with delivery of blows by his hand hammer is not achieved this is dangerous. It is always the Blacksmith who gets hit by the hand hammer when this goes wrong, never the Striker and it is not the Striker's fault that the Blacksmith's hand hammer is hit. When the two hammers collide it's like a Mini Minor hitting a locomotive; we know which one has a sudden change of direction.*

The Blacksmith still has two more stages he can work through in lightening the blows of the Striker.

To shift to the next stage (**Stage Three**) the Blacksmith stops forging and can simply reach around, not over, to the far side of the anvil with the hand hammer to the front vertical face of the anvil and tap it once or twice. For safety reasons the Blacksmith must never reach over the top of the anvil and

tap the vertical face of the anvil because this is the path the Striker's hammer takes to contact the hot steel on the anvil and one doesn't want to place oneself in this path.

Tapping the vertical face of the anvil once is enough for the Striker to see the change in mode, but twice simply gives the Striker time to change stance and hand locations on the sledge hammer handle, in this case, of the 7lb hammer.

What the Striker must do in Stage Three is use a 'Cross Over' or 'Pivot Technique' to deliver the blows with the 7lb hammer. So, once the Blacksmith hits the hot steel again the Striker will continue with a 1:1 ratio.

As the Blacksmith and Striker continue forging, the Blacksmith can introduce the last stage (**Stage Four**) if needed and lighten the hammer blows from the Striker. The Blacksmith will simply start to drop their body weight by bending at the knees. The Striker will pick up on this gesture and understands that the blows are now to be even lighter. These blows are often used in a 'finishing' or 'dressing' heat.

If at some point the Blacksmith requires to go from light to heavy hammer blows, the Blacksmith simply 'puts it in reverse gear'.

If the Blacksmith is forging in Stage Four, with knees bent and starts to straighten up legs, the Blacksmith is now communicating that Stage Three is required and the Striker must respond accordingly and make the blows a little heavier.

Now, also remember that the Striker is still using the 'Cross Over' or 'Pivot Technique' at this point (Stage Three), so if the Blacksmith requires the Striker to enter into the next two stages – Two and then One – the Blacksmith must stop and change mode, applying two taps to the face of the anvil to indicate a 1:1 ratio. This tells the Striker to change hand position on the handle of the sledge hammer, then look for the body language of the Smith and





mimic the Smith's hammer blows.

Correctly positioned, the Striker can clearly see the Blacksmith's body language change when heavy blows or light blows are delivered. The Blacksmith's body can be stretched out and open-chested, signifying heavy blows, for example. This can constantly vary due to the nature of the forging and on how much material needs to be displaced. It is not easy for the Striker to see the depth of blows from their hammer or how much hot material is moving under his hammer with each strike, so the Striker relies heavily on the Blacksmith for guidance and this is governed directly by the performance of the Blacksmith and the height of the Blacksmith's hammer.

And just a suggestion to the Strikers; don't wear a cap when you are striking because the peak of your cap will hinder your view of the Blacksmith and you will easily miss a lot of the body language.

### TRAINING FOR STRIKING

I would be neglecting my responsibilities as an educator if I wasn't continually bringing attention to aspects of this trade/craft to those I know are seeking advice or clarification on its techniques.

In the past I have made many comments about striking and, as a blacksmith, I believe you should be able to perform this skill just as well as any other skill or technique you are adding to your blacksmithing skill set.

If health permits, your entire body is engaged in this action. What should happen when you are pulling down a sledge hammer from above your head is that your entire musculoskeletal structure should be part of the action.

If you stand in front of the anvil striking and you find it's just your arms moving up and down, then you are not striking to your full potential. The flow-on affect is

the Blacksmith must re-heat the job more times - due to the slow displacement of metal in a desired direction - resulting in more carbon exiting the forging (a topic for another time).

Please indulge me a little further; have a look at the image below.



The Striker's body is a blur because all parts of the body are moving in unison to act upon the sledge hammer; all the surrounding items in the image are in focus.

You can practice striking by yourself by creating a training environment where you can practice at your pace which is a safe way to build your confidence and get used to getting some air between the sledge hammer and the contact point.

I use a hardwood log with Ø25mm holes drilled in it about 125mm deep into which I drive some Ø25mm round bar.

Be particular about the height of the round bar the sledge hammer handle is roughly horizontal at point of impact. Practice with this set-up and I guarantee you, it will strengthen your accuracy and confidence in hitting a target with a sledge hammer that was poised well above your head. Then, after lots of practice, you can start to put some speed and muscle into the hammer blows and strike to your full potential.

*In the next edition of The Drift we will delve further into the "Lost Language of Striking". If this article has piqued your interest and you have a question, please contact the Editor and we will do our best to answer it for you. Ed.*



*Striker's training pad.*

## Martin Geddes - featured blacksmith

Martin Geddes has been teaching blacksmithing in many forums for the past twenty-two years and has been in the Metal Trade as a Boilermaker/Welder for thirty-nine years, twenty-four of which has been a full-time TAFE teacher, delivering Certificate III and Certificate IV in Engineering. Martin also holds several other Diplomas in engineering, is a certified welder and does weld testing for WTIA (Welding Technology Institute of Australia). He also holds a Bachelor of Adult Vocational Education with a double major in teaching and human resources.

Whilst interviewing Martin for *The Drift* he had the following comments to offer on his interest in blacksmithing and in particular, Striking. **Ed.**

"Ten years ago I travelled with a group of Australians to Seattle for an ABANA conference to enhance



*Martin Geddes, image courtesy David Rodgers, Instagram page - Dr\_fotographie*

my skill set in blacksmithing. From there I went to North Carolina and stayed with a local blacksmith and his family and for board and keep worked in this blacksmith shop for a week prior to attending the J.C. Campbell Folk School, where I enrolled in three blacksmithing workshops.

"From there I travelled to the Czech Republic and stayed and worked with a blacksmith and his family who owned his own blacksmithing business and I was fortunate to attend many blacksmiths' festivals in that region.

"Returning to Australia, having obtained some new skills and knowledge on forging processes and built on my current ones, I realised there was a large gap in my repertoire which was affecting my ability to work productively, effectively and safely with a striker, let alone two or three. What I had witnessed in my travels was that many blacksmiths had their own way to communicate with a striker, but only used limited actions to progress through the entire job, without having to stop and verbally express what they needed from their striker. Most times, the blacksmith and the striker were familiar with the job at hand and worked together without any real

guidelines on what each other's roles were.

"I wanted:

- the full range of knowledge to be able to call in my Striker;
- to have the Striker equipped with the correct sledge, being a straight or cross pein;
- to call the correct mode of delivery clearly to my Striker;
- to have my Striker able to understand how I wanted them to hit with the sledge hammer weight I called for;
- for them to understand the body language of the Blacksmith;
- for me to clearly understand what sort of performance I can get out of each sledge weight;
- the hammer rhythm, or pace, set by the Striker or the Blacksmith;
- to be able to stop and restart my Striker as required;
- to be able tell my Striker to change hammer weight and to re-engage in the forging, without breaking rhythm;
- to tell my Striker where to stand when hitting tooling;
- to tell my Striker how many times to hit it.

"The list goes on.

"I had an enhanced interest in tool-making on returning to Australia and the desire to use a Striker as part of the process.

"Peter French and I forged together for many hours in the beginning and the processes became more fluid and the lost language started to fill up note-pads of modes, calls and gestures. Ingvar Masson joined us and the lost language continued to gather momentum; we were asked to do demonstrations both local and interstate.

"About four years ago I started to travel to Vietnam looking for Blacksmiths and was in and out of Vietnam about ten times over a three year period, working with Blacksmiths who had no exposure to the industrial revolution and always had Strikers in their shops, often with the Blacksmith managing up to three Strikers at a time.

"In more recent times Troy Honeman has embraced this lost language and forges at Phil Stoker's blacksmith shop with many other Blacksmiths and they in turn use this language to forge a variety of tooling.

"I recall us doing a demonstration in Melbourne one year [Waterside Metal Arts Festival, 2015. Ed.] and a friend of ours said to me, "You blokes don't talk much when you are working together".

"We have been talking all morning, you just haven't understood us," I replied.

"Remember, the focus is not just on the skills of the Striker. It takes an experienced Blacksmith to keep it all together and to have their thoughts around the forging process of the job, have the tooling in the sequence that is needed and to engage with the Striker, and in some cases with the fire men, and have it all come together, heat after heat.

"I look forward to seeing you at the anvil."





# ANNUAL GENERAL MEETING “Buy, Swap and Sell” and BBQ 11:00am, Sunday 23<sup>rd</sup> July, 2017 at The Barn

Please note that the **Annual General Meeting** (AGM) for members of ABA (Vic.) Inc. has been scheduled for **Sunday 23<sup>rd</sup> July, 2017**.  
This meeting will commence at **11.00am**.

Proxy voting forms and other documents relating to the AGM will be posted to members closer to the date.

We hope to conduct a “**Buy, Swap and Sell**”, where members will be able to buy, swap or sell any tools, equipment, books and publications they have no further need for.

We hope many members will participate, either as a buyer, swapper or seller.

Please note that this event will take place **AFTER** the AGM!

For those paying their membership on the day, our new plastic card printer will be put to work printing **membership cards on-the-spot**.

Finally, we will partake in our **mid-Winter BBQ**, which gives members a chance to catch up with old friends and meet some new ones.

Please note - there will be **NO FORGING** on this day.

**AVAILABLE NOW  
FOR SALE TO MEMBERS ONLY**



**40kg Bag \$40.00**

**ALL PAYMENTS TO BE MADE TO TREASURER  
RICK STADLER**

**PICK-UP AT THE BARN**

**At this stage we are NOT selling coke in bulk.**

FOR SALE

**HEAT TREATMENT QUENCH OIL**

**HIGH FLASH POINT OIL SUITABLE FOR HEAT TREATMENT**

**THE NEXT BEST THING TO THE REAL THING: AVAILABLE NOW AT THE BARN**

**50c**

**per litre**

**BYO container**



# Scoresby Steam Rally

...was a success again this year. Eight members of ABA Vic. (Inc.); Keith, Doug, Sarah, James, Ben, Chris, Phil, and Rick attended.

Several forges were located outside the forge building, where Doug Hughes and Rick Stadler produced a variety of hand-forged components for their own use and for the community. Part of our charter is to support the community. A large number of the public viewed their work.

The machinery is quite different from that at The Barn, with two mechanical hammers - a spring hammer, and a beam hammer - and a 5cwt steam hammer, along with a diesel furnace that was fired up. Except for the steam hammer, all the other equipment is run by flat belts from an over head line shaft. The Rigby steam hammer is run on compressed air, as it requires a substantial steam boiler to make it effective otherwise, but nevertheless it operated perfectly under the careful hand of Adam, the hammer driver.

Sarah Edwards and James Rankin were both busy on the anvil using the substantial Alldays forge making smaller tools for their personal kits, as did Ben and Chris, who made great use of the smaller helve hammer to forge a heavy hand hammer head; it saved him considerable time at the anvil.

James was busy making some laminated material using the coke forge and the beam hammer which is an Ajax No.2, made in Cologne, Germany. Later on, James and Stephen, using the diesel furnace and with Adam driving the steam hammer, roughed out a hammer head for James.

One of perks the of attending this event is being able to drive a traction engine, which Sarah took advantage of, much to her delight. [OK, jealous now. **Ed.**]

Phil Pyros was active in talking to visitors during the weekend explaining the Associations activities and support for the Craft.

"I would like to thank everyone who attended this event and issue an invitation to any other members who would be interested in attending in 2018," said Stephen Nicoll.

Stephen Nicoll and Keith Towe





# Kyabram Vintage Machinery Rally

Rick Stadler

Thanks to Simon Baxter's unwavering efforts, a Blacksmith Demonstration was organised for the Kyabram Vintage Machinery Rally on the weekend of the 18th & 19th March. Simon has a group who join him for smithing and they kindly invited us to come along and join in. The event was advertised in *The Drift 104* but the response was deafening in its silence.

Andy Jagger, friend Dale and I ventured up the road to join Simon and his mates; Dave, Peter, Carl, Terry and Gordon. A guest appearance by Jack Gilbert also added to the fun.

The venue was brilliant!

A very comfortable shed with bleachers for the public to sit and watch! Gas forges, charcoal and coke fires were lit and lots of metal was pounded enthusiastically while the public came by. Some stopped and chatted, some sat in the stand opposite and some purchased hand forged items on sale.

Simon's organisation and enthusiasm ensured this was a brilliant event and, by all reports, the public thought so too.

I hope the Kyabram organising committee agree and invite us back next year.

A good bunch of blokes, sharing techniques, interests and laughs was all capped off with a thoroughly enjoyable dinner provided by the Rally. You can't ask for much more, **except for more people to come and join in.**

This event is well worth supporting.

From humble beginnings it is blossoming into a great event with an easy-going atmosphere meaning people are free to join in the camaraderie and have a good time. Keep an eye out for this one next year because I can tell you, you missed out badly this year.

Thanks again to Simon and the guys. You can book me in for next year.

